NO. 8950

| | MENT TRANSMI OSEL, Hans-Peter et al. | | R (Lar | ge Entity) | | 1 | Docket No. | |
|--|--|--|-----------------------------------|---------------------------------------|-----|---------|------------------------|--|
| | | g Date h 7, 2001 | G | Examiner Grace C. Hsu, Ph.D., J.D. | | | Group Art Unit 1627 | |
| Invention: OLIC | GOMERIC CARRIER | MOLECULES W | ITH DE | FINED INCORPO | RAT | ED MAR | KER GROUPS | |
| | TO THE vith is an amendment i calculated and is trans | n the above-identi | fied app | ONER FOR PATE | NTS | | | |
| | | CLAIMS A | S AME | NDED | | | | |
| | CLAIMS REMAINING | HIGHEST# | | NUMBER EXTRA | ı | RATE | ADDITIONAL. | |
| TOTAL CLAIMS | AFTER AMENDMENT 8 - | PREV. PAID FOR | | CLAIMS PRESENT 0 | | \$18.00 | FEE \$0.00 | |
| INDEP. CLAIMS | 3 - | 3 = | | 0 | | \$84.00 | \$0.00 | |
| Multiple Dependent Claims (check if applicable) | | | | | | \$0.00 | | |
| TOTAL ADDITIONAL FEE FOR THIS AMENDMENT | | | | | | | \$0.00 | |
| Please ch A duplicat A check if The Comi communic A duplicat | anal fee is required for a large Deposit Account te copy of this sheet is in the amount of missioner is hereby autoation or credit any over te copy of this sheet is additional filing fees respetent application proc | No. enclosed. to cover the thorized to charge erpayment to Depo enclosed. quired under 37 C | e filing f e payme osit Acc | ount No. 50-0877 16. R 1.17. | | | ed with this | |
| Marilyn L. Amicl Roche Diagnostic | k, Reg. No. 30,444 | | | | | | | |

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NO. 8950 P. 4

RDID 0089 D US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

JOSEL, Hans-Peter et al.

Serial No:

09/801,157

Filed:

March 7, 2001

For:

OLIGOMERIC CARRIER MOLECULES

WITH DEFINED INCORPORATED

MARKER GROUPS AND HAPTEN

Art Unit:

1627

Examiner:

Grace C. Hsu, Ph.D., J.D.

REPLY UNDER 37 CFR §1.111

Assistant Commissioner for Patents Washington, DC 20231

November 14, 2001

Dear Sir:

This reply is in response to the Official Action dated August 14, 2001 which has a shortened statutory period for response of one month that expired on September 14, 2001. A petition for a 2-month extension of time until November 14, 2001 is enclosed herewith.

REMARKS

In view of the comments which follow, and pursuant to 37 CFR §1.111, reconsideration of the Official Action of August 14, 2001 is respectfully requested by Applicants.

CERTIFICATION OF FACSIMULE TRANSMISSION

I hereby certify that the following paper is being sent via facsimile to the U.S. Patent and Trademark Office on Nov. 14, 2001.

Leah Robison

'Serial No. 09/801,157



Election of species requirement

The examiner has made currently pending claims 1-8 subject to restriction and election requirements. The Examiner requires "further election" of a subspecies for each of the following patentably distinct species A-K as identified below that pertains to the claimed methods.

| Species | Claim No's. | Species type as generically defined |
|---------|-------------|--|
| A | 1-8 | Type of conjugate as identified by generic chemical core structure; and a single compound species of the aforementioned generic structure; and the identification of the specific types of monomeric units, i.e., nucleotide(s), nucleotide analogues and amino acids that form the aforementioned conjugate and associated reactive side or protecting groups associated therewith by chemical name and/or chemical structure |
| В | 1-8 | Type of carrier |
| С | 1-8 | Means of linking monomeric units which form a carrier, i.e., how it is linked, what type of linking group moiety, bonds, etc. |
| D | 1-8 | What markers or indicators determine the predetermined positions that the carrier is introduced |
| Е | 1-8 | Types of monomer(s) unit(s) used in the claimed process |
| F | 1-8 | Types of hapten molecule(s) |
| G | 1-8 | Types of marker groups |
| H | 1-8 | types of solid phase binding groups |
| I | 1-8 | What specific linkers, bonds, etc. are the means used to link each of the component units that form the conjugate(s) of the claimed invention and are any specific types of linkers used for the connectivity between specific types of units |
| J | 3 | Types of reactive side groups |
| K | 2,6,7 | Specific types of primary amino protective groups, i.e., specific acid labile or acid stable groups |

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The Examiner argues that each of the species encompassed by the claimed invention representS patentably distinct subject matter. In the instant case, those species each involve different structures and modes of action. Further, the Examiner requests that Applicants provide the chemical structure of each elected species, wherein each specific chemical formula substituents of each of the above-identified elected species are defined either by picture or by expressing the species in terms of the variables of the formula.

Election with traverse

Applicants traverse the election requirement and request the Examiner's reconsideration. The present application is a divisional application of US Serial No. 08/776,190, which is a national stage entry under 35 USC §371 of PCT application PCT/EP95/02915, filed on July 24, 1995. As such, 37 CFR §1.475 (Unity of Invention) applies. The Examiner fails to state the basis upon which the present requirement for election is being made. With respect to the classification of species defined by the Examiner, Applicants argue that the classification is unnecessarily complex, and that at most, only four species defined by the Examiner lend themselves to election of subspecies, namely, species E, F, G and H. The Examiner is referred to the Official Action of April 27, 2000 in parent application S/N 08/776,190 in which a restriction and election requirement was made. The present application is based upon the subject matter of Group III, i.e., claims drawn to a process of preparing a conjugate, classified in at least class 530, subclass 333+ and class 536, subclass 25.3+. In the Action of April 27, 2000, election of Group III required an election of a single disclosed species of synthetically made polymeric carrier/monomeric units selected from nucleotides, nucleotide analogues and amino acids. These species are comparable to species E in the current classification. Further, many of the species categories overlap or are the same as others, e.g., species A (type of conjugate), species B (type of carrier) and species E (types of monomer(s) unit(s)) all appear to be substantially equivalent species. The examiner has failed to exemplify the subspecies, however, and it is unclear in some instances, e.g., species D,

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what exactly is intended to be elected. Applicants position is that the election requirement is improper, and reconsideration is respectfully requested.

As required, Applicants elect the following subspecies:

| Species | Election |
|----------------|---|
| A | The component according to Figure 3 and Formula I on page 26 of the specification. The monomer units are amino acids as listed in Table I, pages 23 and 24. The hapten group is estradiol and the marker group is ruthenium bipyridine. |
| В | A peptidic carrier |
| C | Amino acids linked by peptide bonds |
| D | Not understood by Applicant. Marker groups and haptens, respectively, can be introduced at optional positions. |
| E | Amino acids linked by peptide bonds |
| F | Estradiol) - without a |
| G | Ruthenium bipyridine — \ |
| ₩ | Biotin |
| $t_{\rm I}$ | Covalent bonds |
| , l | Armino side groups |
| K | Fmoc |

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The Examiner is hereby authorized to charge any fees associated with this Amendment to Deposit Account No. 50-0877. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

November 14, 2001

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